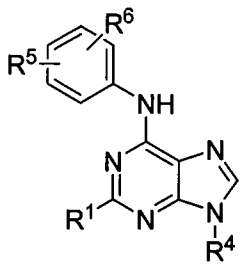
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended): A compound of formula I:



wherein:

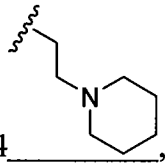
R^1 is a member selected from the group consisting of hydrogen, halogen and -L-R^2;

L is a member selected from the group consisting of -O- and -NR^3-, wherein R^3 is H, or R^3 is optionally taken together with R^2 and the nitrogen to which both are attached to form a heterocycloalkyl, optionally substituted with C_{1-4}alkyl;

R^2 is a member selected from the group consisting of C_{1-4}alkyl and aryl-C_{0-2}alkyl, substituted with 0-2 R^{2a} groups that are independently selected from the group consisting of halogen, C_{1-4}alkyl, C_{1-4}alkoxy, -$N(R^{2b}R^{2b})$, -$SO_2N(R^{2b}R^{2b})$, -$C(O)N(R^{2b}R^{2b})$ and -O-aryl, or when said R^{2a} groups are on adjacent ring atoms they are optionally taken together to form a member selected from the group consisting of -O-$(CH_2)_{1-2}$-O-, -O-$C(CH_3)_2CH_2$- and -$(CH_2)_{3-4}$-;

each R^{2b} group is a member that is independently selected from the group consisting of hydrogen and C_{1-4}alkyl;

R^4 is a member selected from the group consisting of C_{1-4}alkyl, C_{3-8}cycloalkyl, hydroxy-C_{1-4}alkyl, aryl-C_{0-3}alkyl, substituted with 0-2 R^{4a} groups, cyclohexylmethyl and



~~heterocyclo-C_{0-2}alkyl~~_____, optionally substituted with C_{1-4}alkyl;

each R^{4a} group is a member independently selected from the group consisting of hydrogen, halogen, C_{1-4}alkyl, C_{1-4}alkoxy, and aryl, or when said R^{4a} groups are on adjacent ring atoms they are optionally taken together to form -O-$(CH_2)_{1-2}$-O-;

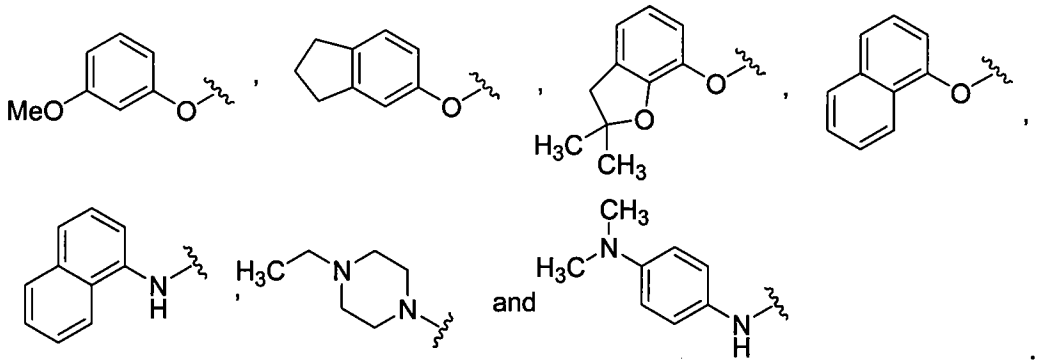
R^5 is hydrogen and R^6 is -N(R^7R^8), or when R^5 and R^6 are on adjacent ring atoms they are optionally taken together to form -O-$(CH_2)_{1-2}$-O-;

R^7 and R^8 are taken together with the nitrogen to which they are attached to form a heterocycloalkyl, optionally substituted with C_{1-4}alkyl; and

all pharmaceutically acceptable salts and hydrates thereof.

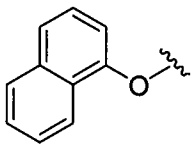
2. (Original): A compound of claim 1, wherein:

R^1 is a member selected from the group consisting of:



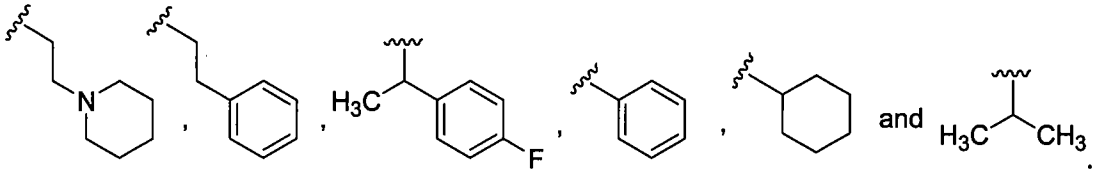
3. (Original): A compound of claim 1, wherein:

R^1 is



4. (Original): A compound of claim 1, wherein:

R^4 is a member selected from the group consisting of:



5. (Original): A compound of claim 1, wherein:

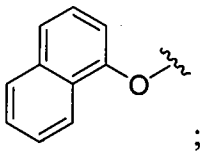
R^4 is cyclohexyl.

6. (Original): A compound of claim 1, wherein:

R^5 is H and R^6 is morpholine.

7. (Original): A compound of claim 1, wherein:

R^1 is

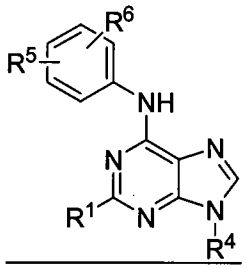


;

R^5 is H; and

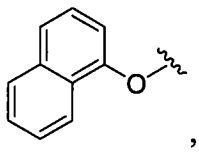
R^6 is morpholine.

8. (Currently amended): A compound <u>having the formula:</u>~~of claim 1,~~



wherein:

R^1 is

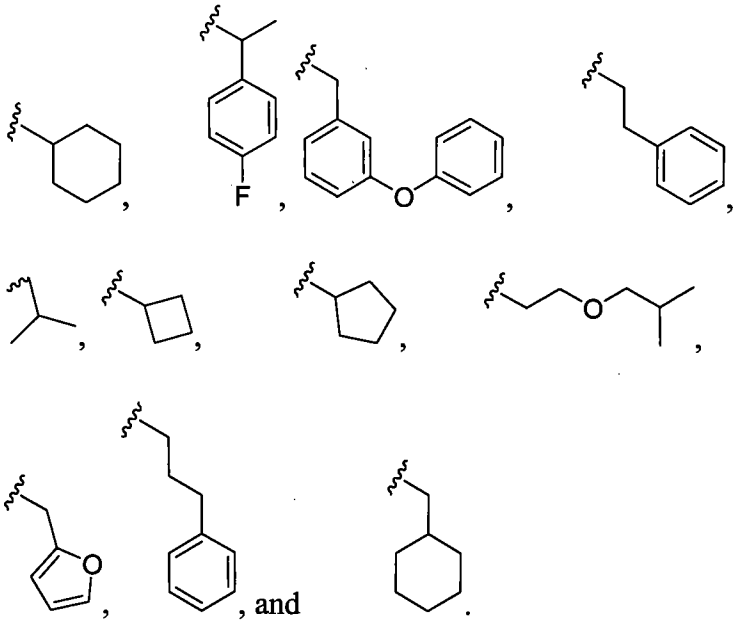


,

R^5 is H;

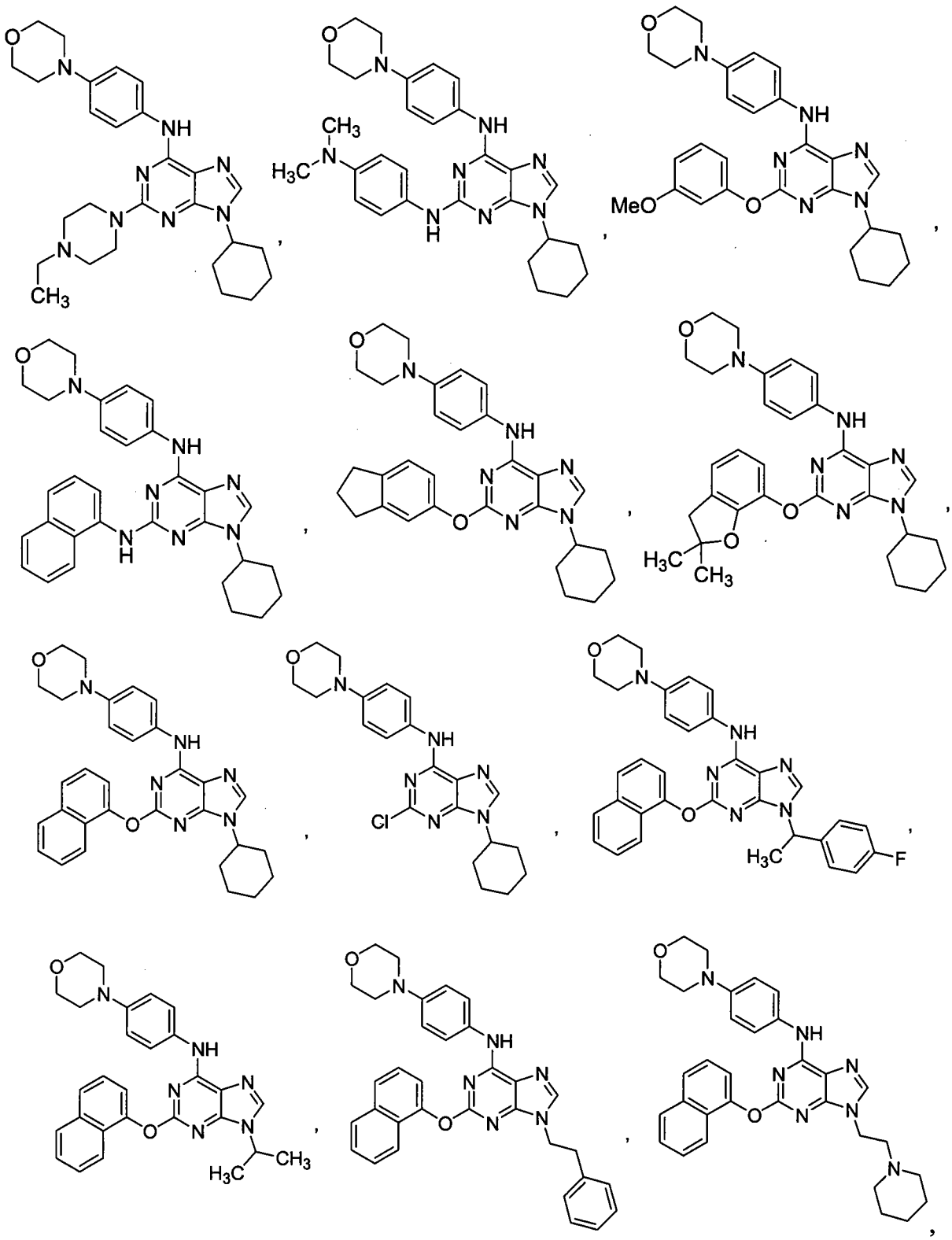
R^6 is morpholine; and

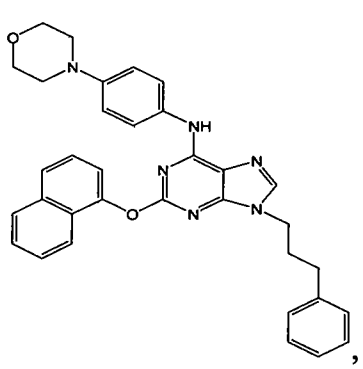
R^4 is a member selected from the group consisting of:



, and .

9. (Currently amended): A compound ~~of claim 1, wherein the compound is a member~~ selected from the group consisting of:

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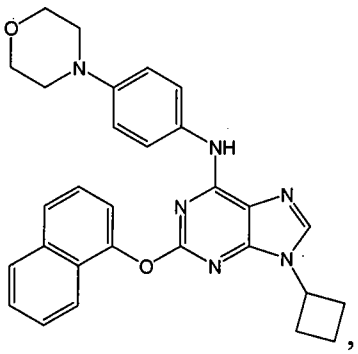
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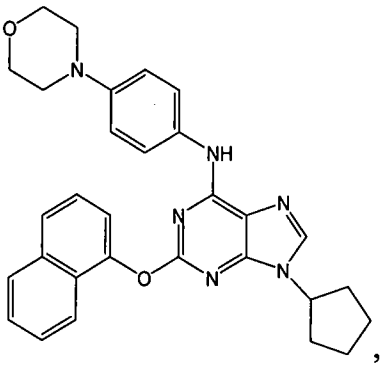
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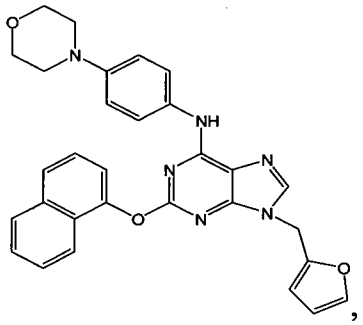
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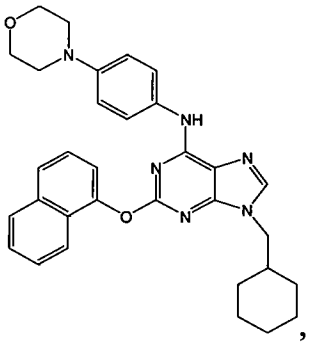
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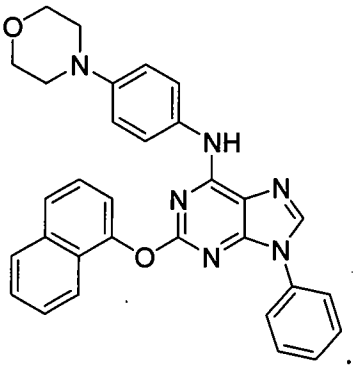
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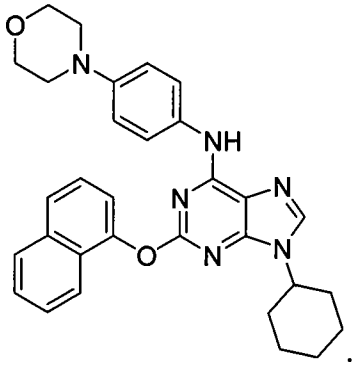
10. (Original): A compound of claim 1, wherein the compound is:


.

11. (Original): A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.

12. (Original): A method of inducing osteogenesis, the method comprising:

contacting a mammalian cell with a compound of claim 1, whereby the mammalian cell differentiates into a cell of an osteoblast lineage.

13. (Original): The method of claim 12, wherein said compound of claim 1 is in a pharmaceutically acceptable carrier.

14. (Original): The method of claim 12, wherein the mammalian cell is in a mammal.

15. (Original): The method of claim 14, wherein the step of contacting is by oral administration of the compound to the mammal.

16. (Original): The method of claim 14, wherein the step of contacting is by intravenous administration of the compound to the mammal.

17. (Original): The method of claim 14, wherein the step of contacting is by subcutaneous administration of the compound to the mammal.

18. (Original): The method of claim 14, wherein the step of contacting is by intraperitoneal administration of the compound to the mammal.

19. (Original): The method of claim 12, further comprising detecting differentiation of the mammalian cell into a cell of an osteoblast lineage.

20. (Original): The method of claim 19, whereby differentiation of the mammalian cell into a cell of an osteoblast lineage is detected by detecting expression of an osteogenesis marker gene.

21. (Original): The method of claim 20, wherein the osteogenesis marker gene is a gene selected from the group consisting of alkaline phosphatase, collagen type I, osteocalcin, and osteoponin.

22. (Original): The method of claim 19, whereby differentiation of the mammalian cell into a cell of an osteoblast lineage is detected by detecting expression of a bone specific transcription factor.

23. (Original): The method of claim 22, wherein the bone specific transcription factor is Cbfa1/Runx2.

24. (Original): The method of claim 12, wherein the mammalian cell is a stem cell.

25. (Original): The method of claim 24, wherein the stem cell is a mesenchymal stem cell.

26. (Original): The method of claim 25, wherein the mesenchymal stem cell is isolated from a mouse.

27. (Original): The method of claim 26, wherein the mesenchymal stem cell is murine embryonic mesoderm fibroblast cell.

28. (Original): The method of claim 25, wherein the mesenchymal stem cell is isolated from a primate.

29. (Original): The method of claim 28, wherein the primate is a human.

30. (Original): The method of claim 12, wherein the mammalian cell is further contacted with bone morphogenetic protein 4 (BMP-4).

31. (Original): The method of claim 30, wherein the mammalian cell is a pre-adipocyte cell.

32. (Original): The method of claim 30, wherein the mammalian cell is a myoblast cell.

33. (Original): The method of claim 12, wherein the mammalian cell is attached to a solid support.

34. (Original): The method of claim 33, wherein the solid support is a three dimensional matrix.

35. (Original): The method of claim 33, wherein the solid support is a planar surface.

36. (Original): A method of inducing osteogenesis, the method comprising:

contacting a mammalian cell with a compound of claim 10, whereby the mammalian cell differentiates into a cell of an osteoblast lineage.

37. (Original): The method of claim 36, wherein the mammalian cell is in a mammal.

38. (Original): The method of claim 36, wherein the step of contacting is by oral administration of the compound to the mammal.

39. (Original): The method of claim 36, wherein the step of contacting is by intravenous administration of the compound to the mammal.

40. (Original): The method of claim 36, wherein the step of contacting is by subcutaneous administration of the compound to the mammal.

41. (Original): The method of claim 36, wherein the step of contacting is by intraperitoneal administration of the compound to the mammal.

42. (Previously presented): A method of treating a bone disorder, the method comprising:

contacting a mammalian cell with a compound of claim 1, whereby the mammalian cell differentiates into a cell of an osteoblast lineage, wherein the bone disorder is associated with defective osteoblasts.

43. (Canceled)

44. (Currently amended): The method of claim 42 [[43]] wherein the bone disorder is osteoporosis.

45. (Original): The method of claim 42, further comprising administering the cell of an osteoblast lineage to an individual with the disorder, thereby treating the disorder.

46. (Original): The method of claim 45, wherein the administration is by surgical implantation.

47. (New): A pharmaceutical composition comprising a compound of claim 8 and a pharmaceutically acceptable carrier.

48. (New): A pharmaceutical composition comprising a compound of claim 9 and a pharmaceutically acceptable carrier.

49. (New): A method of inducing osteogenesis, the method comprising:

contacting a mammalian cell with a compound of claim 8, whereby the mammalian cell differentiates into a cell of an osteoblast lineage.

50. (New): A method of inducing osteogenesis, the method comprising:

contacting a mammalian cell with a compound of claim 9, whereby the mammalian cell differentiates into a cell of an osteoblast lineage.

51. (New): A method of treating a bone disorder, the method comprising:

contacting a mammalian cell with a compound of claim 8, whereby the mammalian cell differentiates into a cell of an osteoblast lineage, wherein the bone disorder is associated with defective osteoblasts.

52. (New): A method of treating a bone disorder, the method comprising:

contacting a mammalian cell with a compound of claim 9, whereby the mammalian cell differentiates into a cell of an osteoblast lineage, wherein the bone disorder is associated with defective osteoblasts.